

## REMARKS

By the present Amendment, claims 11-14, 21 and 23 are amended, claim 27 is cancelled and claims 28 and 29 are added. This leaves claims 11-26, 28 and 29 pending in the application, with claim 11 being independent.

### Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 11-27 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claim 11 is alleged to be indefinite on the ground that rubber is generally not considered a plastic material, such that claim 11 should be modified to read "soft plastic or rubber". However, rubber can be natural or synthetic rubber, with synthetic rubber being in the form of plastic. In support of applicant's position on this issue, appended hereto are copies of portions of Whittington's Dictionary of Plastics (including pages 109-10 and 280) defining natural rubber and synthetic rubber, with synthetic rubber or elastomers being of plastic. This publication fully substantiates applicant's position and demonstrates that the pending claim 11 language is proper and definite.

Claims 12-14 are amended to recite Shore A such that these claims are now definite. Shore A is implied from the original application by being based on PCT/EP00/09932. With such basis, one of ordinary skill in the art would interpret the specification and claims as being limited to Shore A. Thus, this change to claims 12-14 is adequately supported in the application as originally filed.

Claim 21 is corrected by changing "of" to "on", substantially as suggested in the Office Action.

Relative to claim 23, the reference to "undercut" is alleged to be unclear since undercuts are on the undersides or a notch cut into something. Without admitting the propriety of this objection, the language of claim 23 is modified to avoid this objection by changing "undercut areas" to "cut out areas". This language of the same scope is fully supported in the application as originally filed and is definite.

Accordingly, the pending claims are definite and comply with the requirements of 35 U.S.C. § 112.

#### Objection to Declaration Under 37 C.F.R. § 1.131

The Declaration under 37 C.F.R. § 1.131 submitted to remove the Schulte German patent as a reference against this application is objected to on the ground that the specification admits that such patent is prior art by use in the specification of the wording "with this known method". However, the mere indication that the method was known in this patent is not the equivalent of admitting that the method or the patent constitutes "prior art" under 35 U.S.C. § 102. Since the specification does not admit that this method or this German patent is prior art under 35 U.S.C. § 102, the declaration should overcome the application of that patent as a reference against the claims of this application.

Within the context of this application, the reference to "this known method" merely refers to what is disclosed. It does not constitute admission of prior art. None of the decisions cited in

the Office Action supports this position. Absent any clear indication of an admission of prior art, there can be no admission of prior art.

As stated in M.P.E.P. § 715 II(G), an applicant's admission may be used as "prior art" in the rejection of claims where "applicant has clearly admitted on the record that the subject matter relied on in the reference is prior art" (emphasis in original). Each of the four decisions cited in the Office Action involve a clear admission in the record. No such admission exists in the present case by use of the word "known."

Accordingly, the cited Schulte German patent should not be applied in a rejection of the claims of this application.

#### Rejections Under 35 U.S.C. § 102 and 103

Claim 11 covers a method for producing a flexible-shaped strip 18 for securing a cushion covering 12 to a cushion component 10 formed of a foam material and provided with a longitudinal passage 20 for engaging the strip. The method comprises forming the shaped strip from plastic material, and providing a slip-preventer at least partially on an exterior periphery of the shaped strip. The slip-preventer is a plastic material softer than the plastic material of the shaped strip.

By performing the method in this manner, the slip-preventer increases tear resistance of the shaped strip to resist inadvertent removal of the shaped strip from the longitudinal passage in the cushion component.

Claims 1, 15, 17 and 22 stand rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 5,343,610 to Hareda. The Hareda patent is cited for disclosing an extrusion coating of

a non-skid rubber on a plastic core, as allegedly disclosed in column 11, lines 52-56, column 12, lines 56-58, and column 13, lines 16-19. Although the Hareda material is disclosed for making automobile tires, it is contended that the material is capable of securing a cover to a cushion on the ground that the claim only requires the capability, and not the actual insertion of the flexible strip into a seat cushion.

However, nothing in the evidence of record supports the contention that the Hareda method produces an article which has the capabilities alleged. Specifically, nothing in the Hareda patent suggests that its product could or should be used in combination with a foam cushion to secure a cover to the cushion. The mere fact that the product is woven into a mold does not establish it as being flexible. Thus, the Hareda patent does not anticipate or render obvious the subject matter of claim 11, as well as the claims dependent thereon. Clearly, the Hareda patent in relating to a non-analogous method of making an automobile tire does not render the subject matter of claim 11 unpatentable.

Claims 11, 15 and 17 stand rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 3,876,495 to Esler. The Esler patent is cited for a flexible cord formed of polymer fibers covered by extruded foam coatings as allegedly disclosed in column 2, lines 2-17, column 3, lines 48-50, and column 6, line 57. This material is also considered to be capable of securing a cover to a cushion. However, such material is only disclosed for use as a boxing strip. No analysis or evidence is supported to disclose that it is also capable of securing a cover to a foam cushion as recited in the presently pending claims.

Accordingly, claim 11, as well as the claims dependent thereon, are not anticipated or rendered obvious by the Esler patent.

Claims 11, 15, 17, 20-24 and 27 stand rejected as being unpatentable over the Schulte German patent (DE 19808995) in view of the Esler patent and U.S. Patent No. 4,718,718 to Maruyama. The Schulte German patent is cited for a flexible strip to secure a seat cover to a seat cushion along a longitudinal slit. The Esler patent is cited for the use of a foam material to prevent slippage. The Maruyama patent is cited for applying a rubber layer to the outside of a wire which allegedly secures a cover to a foam cushion. In support of the rejection, it is alleged that it would be obvious to modify the Schulte shaped strip by providing the soft plastic material in view of the Esler patent and the Maruyama patent.

The use of ultraviolet and electron beam radiation for curing is alleged to be obvious to one of ordinary skill in the art, although no evidence is supplied for the use such radiation in this specific environment. Relative to claim 22, the Maruyama patent is cited relative to the disclosure of rubber. Relative to claim 3, the use of a slip-preventer on only the top of the shaped strip is alleged to be obvious.

In view of the Declaration under 37 C.F.R. § 1.131 swearing behind the publication date of this Schulte German patent, this Schulte German patent should be removed as a reference against this application. For the reasons noted above, the original specification does not constitute admission that that patent constitutes prior art.

Additionally, this combination of three patents does not render the subject matter recited in the rejected claims obvious. Specifically, the Esler patent relates to subject matter which is not analogous to the subject matter of the Schulte German patent and of the Maruyama patent. Nothing in the evidence of record suggests that the Esler welding cord is capable of or should be used for securing covers to foam cushions. No related problems are identified, since no

disclosure of slip prevention to a slot in surrounding material appears to be provided. In the absence of this disclosure, the rejection entails the improper use of hindsight. In view of the non-analogous nature of the Esler patent, one of ordinary skill in the art would not look to the subject matter of the Esler patent to modify that of the Schulte German patent. The Maruyama patent is also non-analogous since its wire does not directly engage the foam cushion, thereby involving a different situation and different problems and properties. Slip prevention relative to the foam cushion is not disclosed in the Maruyama patent.

Moreover, the complex combination of three patents relative to the claimed subject matter further indicates that the claimed subject matter is unobvious. No adequate motivation is presented in the evidence of record to combine these three patents in the manner proposed in the statement of the rejection.

Accordingly, claim 11 is patentably distinguishable over the cited patents.

Claims 11-27, being dependent upon claim 11, are also allowable for the above reasons. Moreover, these dependent claims recite additional features further distinguishing them over the cited patents.

Claims 12-14 are further distinguished by the Shore A hardness values specified therein. Relative to these values, U.S. Patent No. 4,057,956 to Tolle is cited. However, the Tolle patent relates to steel cables which are used for securing, lifting, towing or pulling objects. The nature of the cable in the Tolle patent is so different from that of the Schulte German patent that it would not be obvious to modify the strip of the Schulte German patent in the manner alleged in paragraph 9 of the Office Action.

Relative to the Tolle patent, pertinency to the problem is alleged to be the basis for providing the motivation for the combination. However, acknowledgement of the problem in both the basic patent and in the modifying (Tolle) patent is not provided to support a prima facie case of obviousness.

The co-extrusion of claim 16, the spray method of claim 18, the dipping coating method of claim 19, the application of flakes of claim 25, and the application of clots of claim 26, further distinguish these claims. Relative to these claims, U.S. Patent No. 5,095,915 to Engelson is cited. However, the Engelson patent relates to a catheter guide wire, not to a flexible strip for securing a cover to a foam cushion. As such, it would not be obvious to modify the strip of the Schulte German patent in view of the Engelson patent since there is no suggestion or motivation for the alleged combination or modification. The environments and the problems associated therewith are non-analogous. Further, no evidence of record supports the allegation that the use of flakes or clots is obvious.

The other dependent claims are further distinguished by the hot coating method of claim 17, the dipping coating method of claim 20, the hardening of claims 20 and 21, the rubber of claim 22, the coating of only the cutout areas of claim 23, and the profile of claim 24.

New claim 28 is further distinguished by the recited coating method for the reasons presented above, which reasons are not repeated.

Claim 29 is further distinguished by the step of the shaped strip with the slip-preventer thereon being inserted into a foam cushion for securing a cover to the cushion. Clearly, such step is not provided in the Haruda and Esler patents, and is not anticipated or rendered obvious by any of the other cited patents.

In view of the foregoing, claims 11-26, 28 and 29 are allowable. Prompt and favorable action is solicited.

Respectfully submitted,



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# WHITTINGTON'S DICTIONARY OF PLASTICS

*by*

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**Ejector Pin Retainer Plate.** A retainer into which the ejector pins are assembled.

**Ejector Plate.** A plate which backs up the ejector pins and holds the ejector assembly together.

**Ejector Return Pins.** Projections that push back the ejector assembly as the mold closes. Also called *return pins*, *surface pins*, *safety pins*, and *position pushbacks*.

**Ejector Rod.** A bar that actuates the ejector assembly when a mold is opened.

**Elastic Deformation.** A change in dimensions of an object under load that is fully recovered when the load is removed. That part of the total strain in a stressed body which disappears upon removal of the stress. See also PLASTIC DEFORMATION.

**Elasticity.** The ability of a material to quickly recover its original dimensions after removal of a load that has caused deformation. When the deformation is proportional to the applied load, the material is said to exhibit *Hookean elasticity* or *ideal elasticity*.

**Elasticizer.** A term sometimes used for a compounding additive which contributes elasticity to a resin. For example, chlorinated polyethylenes and chlorinated copolymers of ethylene and propylene are blended with PVC compositions for this purpose.

**Elastic Limit.** The greatest stress which a material is capable of developing without any permanent strain remaining upon complete release of the stress.

**Elastic Melt Extruder.** See EXTRUDER, ELASTIC MELT.

**Elastic Memory.** A characteristic of certain plastics evidenced by their tendency upon reheating to revert to a shape or dimension previously existing during their manufacture. For example, a film which has been stretched or oriented under certain conditions will, upon reheating, return to its unstretched condition due to elastic memory.

**Elastic Modulus.** See MODULUS OF ELASTICITY.

**Elastic Nylon.** See NYLON 6/10.

**Elastic Recovery.** That fraction of a given deformation which behaves elastically. A perfectly elastic material has an elastic recovery of 1; a perfectly plastic material has an elastic recovery of 0. Elastic recovery is an important factor in films used for stretch packaging, because it relates directly to the ability of a film to hold a load together. Retention of the elastic recovery factor over a period of time is also important.

**Elastodynamic Extruder.** See EXTRUDER, ELASTIC MELT.

**Elastomer.** A material which at room temperature can be stretched repeatedly to at least twice its original length and, upon immediate release of the stress, will return with force to its approximate original length. This definition is one criterion by which materials called plastics in commerce are separated from elastomers and synthetic rubbers. Another criterion

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is that, unlike thermoplastics which can be repeatedly softened and hardened by heating and cooling without substantial change in properties, most elastomers are given their final properties by mastication with fillers, processing aids, antioxidants, curing agents, etc., followed by vulcanization (curing) by heating. Polymers usually considered to be elastomers, at least in some of their forms, are listed below.

Abbreviation	Common or Trade Name	Chemical Name
NBR	Buna N, Nitrile Rubber	Butadiene-acrylonitrile copolymer
—	Plaskon CPE	Chlorinated polyethylene
CR	Neoprene	Chloroprene polymers
CSM	Hypalon (HYP)	Chlorosulfonyl polyethylene
—	Hytrel	Copolyester
EOT	Thiokol B	Ethylene ether polysulfide
ET	Thiokol A	Ethylene polysulfide
EPM	EP Elastomer	Ethylene propylene copolymer
EPDM	EP Elastomer	Ethylene propylene terpolymer
FPM	Viton, Fluorel, Kel-F	Fluorinated hydrocarbon
FVSi	Silastic LS	Fluorosilicone
IIR	Butyl, chloro-butyl rubber	Isobutylene-isoprene
Si	Silicone rubber	Organopolysiloxane
ABR	Acrylic rubber	Polyacrylate
BR	CBR, PBd	Polybutadiene
CO	Hydrin (CO, ECOO	Polyepichlorohydrin
NR	Natural rubber	Polyisoprene, natural
IR	Synthetic rubber	Polyisoprene, synthetic
AU	Urethane rubber (UR)	Polyurethane (polyester)
EU	Urethane rubber (UR)	Polyurethane (polyether)
SBR	GR-S, Buna S, Solprene	Styrene-butadiene copolymer
TPO		PE-Butyl graft copolymer
	Kraton "G"	SBS Block Copolymer
TPR®	Thermoplastic Rubber®	
	Telcar	Polyolefin
TNP	Thermoplastic Nortal	
	Profax SB814	Olefinic
	X-414	Polyisoprene

Elastomeric Adhesives. See ADHESIVES.

Ela1. See ETHYLENE.

Electrets. Disks of polymeric material which have been electrically polarized so that one side has a positive charge and the other side a negative charge, much like permanent magnets. Electrets may be formed of poor conductors such as PMMA, polystyrene, nylon, and polypropylene, by heating and cooling them in the presence of a strong electromagnetic field.

Electrically Conductive Plastics. Business machine housings, structural components and static control accessories often require plastics that have some degree of electrical conductivity. Additives that impart such conductivity are metallic powders, carbon black, carbon fibers and mats, and (more recently) metallized glass fibers and spheres.

Electrical Resistance. See ARC RESISTANCE, BREAKDOWN VOLTAGE, CORONA RE-

**Rubber Hydrochloride.** A non-flammable thermoplastic material obtained by treating a solution of rubber with anhydrous hydrogen chloride under pressure at low temperatures. The packaging film "Pliofilm" is an example.

**Rubber, Natural.** (India rubber, caoutchouc) A polymer consisting essentially of cis-1,4-polyisoprene, obtained from the sap (latex) of certain trees and plants, usually the *Hevea Brasiliensis* tree. The material is shipped from plantations in one of two primary forms: Latex, usually preserved with ammonia and centrifuged to remove part of the water; or sheets made by milling the coagulum from the latex.

**Rubber Plate Printing.** A marking method sometimes employed for intricate parts such as molded terminal blocks. Numbers, instructions or part names are stamped with conventional rubber stamps or printing plates.

**Rubber Plunger Molding.** A variation of matched-die molding, employing a deformable rubber plunger and a heated metal female mold. The process enables the use of high fiber loadings.

**Rubbers, Synthetic.** See ELASTOMER.

**Rubber, Synthetic Natural.** An awkward term sometimes used for the elastomers which most nearly resemble natural rubber, such as cis-1,4-polyisoprene.

**Rubber Transition.** (rubbery transition, gamma transition) See GLASS TRANSITION.

**Runner.** In an injection or transfer mold, the feed channel, usually of circular cross section, that connects the sprue with the cavity gate. The term is also used for the plastic piece formed in this channel.

**Runnerless Injection Molding.** A molding process in which the runners are insulated from the cavities and kept hot, so that the molded parts are ejected with only small gates attached. See also HOT RUNNER MOLD.

**Runnerless Injection Molding.** (Thermosets) See COLD RUNNER INJECTION MOLDING.

**Runner System.** This term is sometimes used for the entire mold feeding system, including sprues, runners and gates, in injection or transfer molding.

**Rutile.** One of the crystalline forms of TITANIUM DIOXIDE, which see.

**SABRA.** Abbreviation for Surface Activation Beneath Reaction Adhesives, a method of bonding plastics such as polyolefins and Teflon which are not normally receptive to adhesives without pretreatment. The method consists of mechanically abrasion of the surfaces to be joined to roughen their outer layers, scission of bonds with creation of free radicals, and further reaction with primers in the liquid, vapor or gaseous phase. An adhesive such as an epoxy is then applied.

**Sag.** In blow molding, the local reduction in diameter of the parison, or "necking down," caused by gravity. It is usually greatest on the portion nearest to the die, and increases as the

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